

METHOD AND APPARATUS FOR COMPUTER ASSISTANCE  
WITH TOTAL HIP REPLACEMENT PROCEDURE

ABSTRACT

Hip replacement surgery involves replacing the head and neck of the femur with an artificial component having a ball-shaped head and neck similar to that of a replaced femoral head and neck and inserting a cup-shaped component into the acetabulum to act as a liner to receive the ball of the femoral component. During this procedure, a surgeon encounters or has to overcome several problems. These problems include establishing the correct inclination, version and medialization for the acetabular component of the artificial hip; the correct version or angle of the femoral component; and maintaining correct leg length.